PATENT
Attorney Docket No. 101.0053-00000
Customer No. 22882
Express Mail Label No. ED541942665US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
Gary K. Michelson	)	
Serial No.: 08/480,908	)	Group Art Unit: 3764
Filed: June 7, 1995	)	Examiner: M. Brown
For: THREADED FRUSTO-CONICAL INTERBODY SPINAL FUSION IMPLANTS	)	

Mail Stop AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

SECOND REQUEST FOR INTERFERENCE UNDER 37 C.F.R. § 41.202(a)

Applicant hereby requests an interference with U.S. Patent No. 6,645,206 to Zdeblick et al. (hereinafter, "Zdeblick") pursuant to 37 C.F.R. § 41.202(a). A proposed count is attached hereto.

Claims 9-17 and 22 of Zdeblick correspond to claims 1-10, respectively, of the proposed count. Claims 183-192 of the present application also correspond to claims 1-10 of the proposed count.

Claims 183-192 of the present application are a copy of claims 9-17 and 22, respectively, of Zdeblick. A claim chart in accordance with 37 C.F.R. § 41.202(a)(3) comparing the claims of each party corresponding to the proposed count is attached hereto. The claims interfere within the meaning of 37 C.F.R. § 41.203(a) because the subject matter of claims 183-192 of the present application would, if prior art, anticipate or render obvious the subject matter of claims 9-17 and 22, respectively, of Zdeblick, and vice-versa.

Applicant will prevail on priority because the present application has a filing date within three months of the earliest effective filing date of Zdeblick and Applicant can

show conception and due diligence from a date before the earliest effective filing date of Zdeblick up to the time the present application was filed.

A claim chart in accordance with 37 C.F.R. §§ 41.202(a)(5) and (6) showing the written description in the specification for each claim added to provoke an interference, and showing where the disclosure of the present application provides a constructive reduction to practice within the scope of the interfering subject matter is attached hereto. The requirements of both 37 C.F.R. §§ 41.202(a)(5) and (6) are met in a single chart because the specification and drawings providing the basis for each of §§ 41.202(a)(5) and (6) are the same.

The Examiner is requested to declare an interference between the present application and U.S. Patent No. 6,645,206.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this Request, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 50-1066.

Respectfully submitted,

MARTIN & FERRARO, LLP

Date: November 10, 2004

By: _____
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PROPOSED COUNT UNDER 37 C.F.R. § 41.202(a)(2)

1. A fusion device for facilitating arthrodesis in the disc space between adjacent vertebrae, comprising:

an elongated body having a length and an outer surface extending along said length, said outer surface including a pair of oppositely disposed arcuate portions and a pair of substantially flat portions extending between said pair of arcuate portions, said pair of arcuate portions defining external threads extending substantially entirely along said length of said body, said pair of substantially flat portions extending along a substantial portion of said length of said body, said pair of substantially flat portions terminating adjacent a first end of said elongated body, said external threads defining at least one circumferentially continuous thread adjacent said first end of said elongated body.

2. The fusion device according to claim 1, wherein said pair of opposite arcuate portions defines an outer dimension adjacent a first end of said elongated body, said outer dimension being adapted for engagement within a lesser dimension of the disc space.

3. The fusion device according to claim 1, wherein said elongated body defines a hollow interior.

4. A fusion device for facilitating arthrodesis in the disc space between adjacent vertebrae, comprising:

an elongated body having a length and an outer surface extending along said length, said outer surface including a pair of oppositely disposed arcuate portions and a pair of substantially flat portions extending between said pair of arcuate portions, said pair of arcuate portions defining external threads extending substantially entirely along said length of said body, said pair of substantially flat portions extending along a substantial portion of said length of said body, said elongated body defining a hollow interior, said pair of arcuate portions each defining at least one opening extending therethrough in communication with said hollow interior.

5. The fusion device according to claim 4, further comprising a bone growth inducing material disposed within said hollow interior.

6. The fusion device according to claim 4, wherein said pair of substantially flat portions are disposed generally opposite one another.

7. The fusion device according to claim 4, wherein said pair of substantially flat portions are substantially parallel to one another.

8. The fusion device according to claim 4, wherein said openings defined by said pair of arcuate portions are disposed generally opposite one another.

9. The fusion device according to claim 4, wherein said pair of arcuate portions are tapered along a substantial portion of said length of said elongated body.

10. The fusion device according to claim 4, further comprising an insertion instrument adapted to implant the fusion device within the disc space between the adjacent vertebrae.

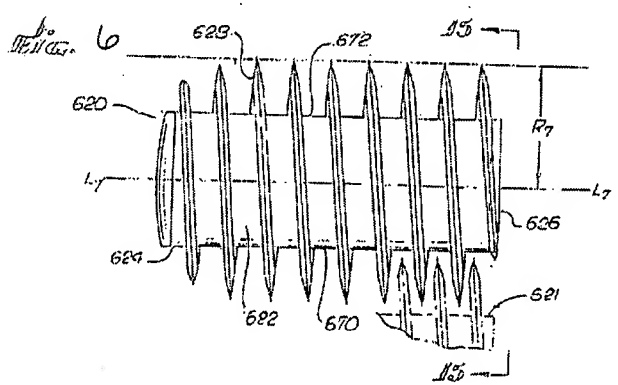
CLAIM CHART UNDER 37 C.F.R. § 41.202(a)(3)

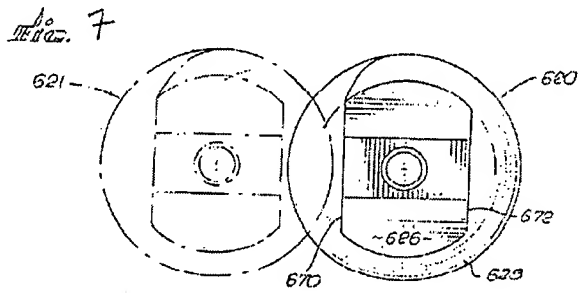
Claim Count Number	Claims of Application No. 08/480,908	Claims of U.S. Patent No. 6,645,206
1	183. A fusion device for facilitating arthrodesis in the disc space between adjacent vertebrae, comprising: an elongated body having a length and an outer surface extending along said length, said outer surface including a pair of oppositely disposed arcuate portions and a pair of substantially flat portions extending between said pair of arcuate portions, said pair of arcuate portions defining external threads extending substantially entirely along said length of said body, said pair of substantially flat portions extending along a substantial portion of said length of said body, said pair of substantially flat portions terminating adjacent a first end of said elongated body, said external threads defining at least one circumferentially continuous thread adjacent said first end of said elongated body.	9. A fusion device for facilitating arthrodesis in the disc space between adjacent vertebrae, comprising: an elongated body having a length and an outer surface extending along said length, said outer surface including a pair of oppositely disposed arcuate portions and a pair of substantially flat portions extending between said pair of arcuate portions, said pair of arcuate portions defining external threads extending substantially entirely along said length of said body, said pair of substantially flat portions extending along a substantial portion of said length of said body, said pair of substantially flat portions terminating adjacent a first end of said elongated body, said external threads defining at least one circumferentially continuous thread adjacent said first end of said elongated body.
2	184. The fusion device according to claim 183, wherein said pair of opposite arcuate portions defines an outer dimension adjacent a first end of said elongated body, said outer dimension being adapted for engagement within a lesser dimension of the disc space.	10. The fusion device according to claim 9, wherein said pair of opposite arcuate portions defines an outer dimension adjacent a first end of said elongated body, said outer dimension being adapted for engagement within a lesser dimension of the disc space.
3	185. The fusion device according to claim 183, wherein said elongated body defines a hollow interior.	11. The fusion device according to claim 9, wherein said elongated body defines a hollow interior.
4	186. A fusion device for facilitating arthrodesis in the disc space	12. A fusion device for facilitating arthrodesis in the disc space

	between adjacent vertebrae, comprising: an elongated body having a length and an outer surface extending along said length, said outer surface including a pair of oppositely disposed arcuate portions and a pair of substantially flat portions extending between said pair of arcuate portions, said pair of arcuate portions defining external threads extending substantially entirely along said length of said body, said pair of substantially flat portions extending along a substantial portion of said length of said body, said elongated body defining a hollow interior, said pair of arcuate portions each defining at least one opening extending therethrough in communication with said hollow interior.	between adjacent vertebrae, comprising: an elongated body having a length and an outer surface extending along said length, said outer surface including a pair of oppositely disposed arcuate portions and a pair of substantially flat portions extending between said pair of arcuate portions, said pair of arcuate portions defining external threads extending substantially entirely along said length of said body, said pair of substantially flat portions extending along a substantial portion of said length of said body, said elongated body defining a hollow interior, said pair of arcuate portions each defining at least one opening extending therethrough in communication with said hollow interior.
5	187. The fusion device according to claim 186, further comprising a bone growth inducing material disposed within said hollow interior.	13. The fusion device according to claim 12, further comprising a bone growth inducing material disposed within said hollow interior.
6	188. The fusion device according to claim 186, wherein said pair of substantially flat portions are disposed generally opposite one another.	14. The fusion device according to claim 12, wherein said pair of substantially flat portions are disposed generally opposite one another.
7	189. The fusion device according to claim 186, wherein said pair of substantially flat portions are substantially parallel to one another.	15. The fusion device according to claim 12, wherein said pair of substantially flat portions are substantially parallel to one another.
8	190. The fusion device according to claim 186, wherein said openings defined by said pair of arcuate portions are disposed generally opposite one another.	16. The fusion device according to claim 12, wherein said openings defined by said pair of arcuate portions are disposed generally opposite one another.
9	191. The fusion device according to claim 186, wherein said pair of arcuate portions are tapered along a substantial portion of said length of said elongated body.	17. The fusion device according to claim 12, wherein said pair of arcuate portions are tapered along a substantial portion of said length of said elongated body.

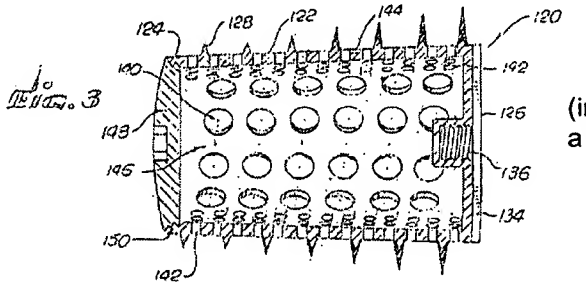
10	192. The fusion device according to claim 186, further comprising an insertion instrument adapted to implant the fusion device within the disc space between the adjacent vertebrae.	22. The fusion device according to claim 12, further comprising an insertion instrument adapted to implant the fusion device within the disc space between the adjacent vertebrae.

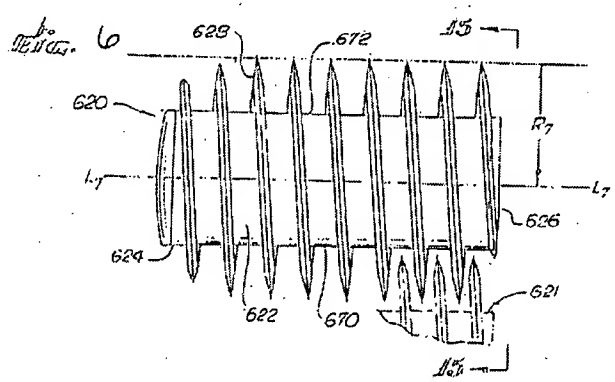
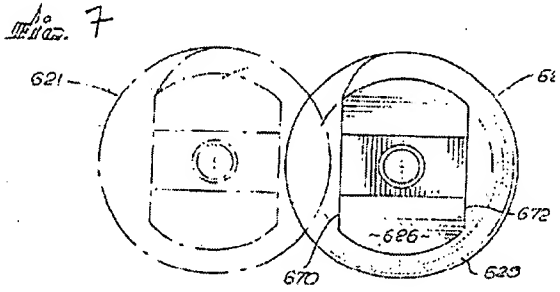
CLAIM CHART UNDER 37 C.F.R. §§ 41.202(a)(5) and (6)

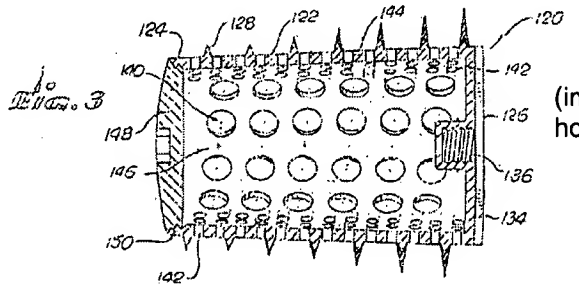
Claim Count Number	Claims of Application No. 08/480,908	Description and Location in Disclosure Providing Constructive Reduction to Practice
1	183. A fusion device for facilitating arthrodesis in the disc space between adjacent vertebrae, comprising: an elongated body having a length and an outer surface extending along said length, said outer surface including a pair of oppositely disposed arcuate portions and a pair of substantially flat portions extending between said pair of arcuate portions, 	Applicant discloses an elongated body (body 622) having a length and an outer surface extending along the length, the outer surface including a pair of oppositely disposed arcuate portions (see Specification, page 3, lines 17-21) and a pair of substantially flat portions (sides 670, 672) extending between the pair of arcuate portions. (See Specification, page 14, lines 30-32; and Figs. 6 and 7). "The spinal fusion implants of the present invention may be further modified so that while the upper and lower surfaces are portions of a frusto-cone, at least one side portion may be truncated to form a planar surface that is parallel to the central longitudinal axis of the implant to form straight walls." (Specification, page 3, lines 17-21). "The body 622 of the implant 620 has truncated sides 670 and 672 forming planar surfaces that are parallel to the longitudinal axis L_7." (Specification, page 14, lines 30-32). 

		 (body with oppositely disposed arcuate portions and a pair of flat portions)
	said pair of arcuate portions defining external threads extending substantially entirely along said length of said body,	The arcuate portions disclosed by Applicant define external threads 628 extending substantially entirely along the length of the body 622. (See Specification, page 15, lines 4-5; and Fig. 7 (above)). "The implant 620 has an external thread 628 having a radius R_6 measured from the central longitudinal axis L_7...." (Specification, page 15, lines 4-5).
	said pair of substantially flat portions extending along a substantial portion of said length of said body,	Applicant discloses that the pair of substantially flat portions (670, 672) extend along a substantial portion of the length of the body. (See Specification, page 3, lines 19-21; and Figs. 6 and 7 (above)). "...at least one side portion may be truncated to form a planar surface that is parallel to the central longitudinal axis of the implant to form straight walls." (Specification, page 3, lines 19-21).

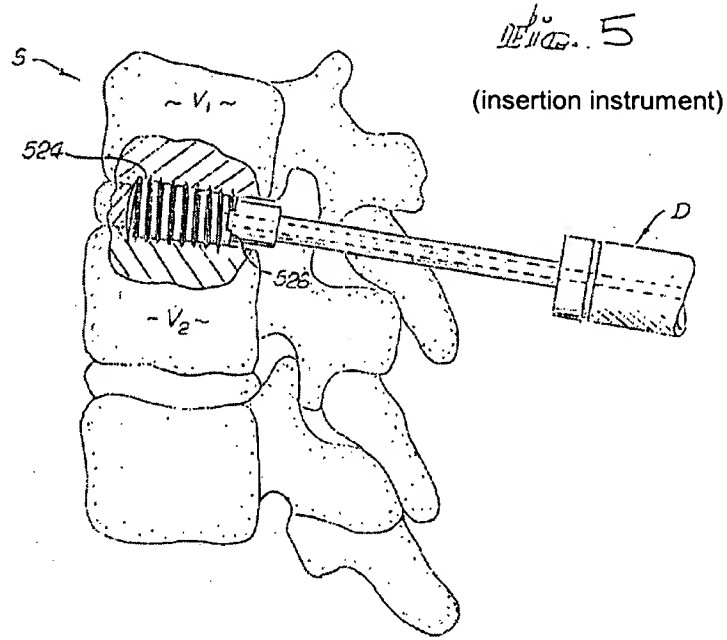
	said pair of substantially flat portions terminating adjacent a first end of said elongated body,	As disclosed by Applicant, the pair of substantially flat portions terminate adjacent a first end of the elongated body. (See Fig. 6 above).
	said external threads defining at least one circumferentially continuous thread adjacent said first end of said elongated body.	The external threads disclosed by Applicant define at least one circumferentially continuous thread adjacent the first end of the elongated body. (See Figs. 6 and 7 above).
2	184. The fusion device according to claim 183, wherein said pair of opposite arcuate portions defines an outer dimension adjacent a first end of said elongated body, said outer dimension being adapted for engagement within a lesser dimension of the disc space.	Applicant discloses the pair of opposite arcuate portions defining an outer dimension adjacent the first end of the elongated body being adapted for engagement within a lesser dimension of the disc space. (See Specification, page 3, lines 21-23, and page 4, lines 10-14). "These implants may have a more tapered aspect at the insertion end of the implant to facilitate insertion." (Specification, page 3, lines 21-23). "In another embodiment, where the trailing edge of the implant is larger than the leading edge, the implant utilizes a tapered forward portion and an increasing thread height relative to the body from the leading edge to the trailing edge to facilitate insertion." (Specification, page 4, lines 10-14).
3	185. The fusion device according to claim 183, wherein said elongated body defines a hollow	The elongated body disclosed by Applicant defines a hollow interior. (See page 3, lines 32-34; and Fig. 3).

	interior.	"The spinal fusion implants of the present invention may have at least one chamber which may be in communication through at least one opening to the surface of the implant." (Specification, page 3, lines 32-34).  (implant having a hollow interior)
4	186. A fusion device for facilitating arthrodesis in the disc space between adjacent vertebrae, comprising: an elongated body having a length and an outer surface extending along said length, said outer surface including a pair of oppositely disposed arcuate portions and a pair of substantially flat portions extending between said pair of arcuate portions,	Applicant discloses an elongated body (body 622) having a length and an outer surface extending along the length, the outer surface including a pair of oppositely disposed arcuate portions (see Specification, page 3, lines 17-21) and a pair of substantially flat portions (sides 670, 672) extending between the pair of arcuate portions. (See Specification, page 14, lines 30-32; and Figs. 6 and 7). "The spinal fusion implants of the present invention may be further modified so that while the upper and lower surfaces are portions of a frusto-cone, at least one side portion may be truncated to form a planar surface that is parallel to the central longitudinal axis of the implant to form straight walls" (Specification, page 3, lines 17-21). "The body 622 of the implant 620 has truncated sides 670 and 672 forming planar surfaces that are parallel to the

		longitudinal axis L_7." (Specification, page 14, lines 30-32).   (body with oppositely disposed arcuate portions and a pair of flat portions)
said pair of arcuate portions defining external threads extending substantially entirely along said length of said body,		The arcuate portions disclosed by Applicant define external threads 628 extending substantially entirely along the length of the body 622. (See Specification, page 15, lines 4-5; and Fig. 7 (above)). "The implant 620 has an external thread 628 having a radius R_6 measured from the central longitudinal axis L_7...." (Specification, page 15, lines 4-5).
said pair of substantially flat portions extending along a substantial portion of said length of said body,		Applicant discloses that the pair of substantially flat portions (670, 672) extend along a substantial portion of

		the length of the body. (See Specification, page 3, lines 19-21; and Figs. 6 and 7 (above)). "...at least one side portion may be truncated to form a planar surface that is parallel to the central longitudinal axis of the implant to form straight walls." (Specification, page 3, lines 19-21).
	said elongated body defining a hollow interior, said pair of arcuate portions each defining at least one opening extending therethrough in communication with said hollow interior.	The elongated body disclosed by Applicant defines a hollow interior, the pair of arcuate portions each defining at least one opening extending therethrough in communication with the hollow interior. (See page 3, lines 32-34; and Fig. 3). "The spinal fusion implants of the present invention may have at least one chamber which may be in communication through at least one opening to the surface of the implant." (Specification, page 3, lines 32-34).  (implant having a hollow interior)
5	187. The fusion device according to claim 186, further comprising a bone growth inducing material disposed within said hollow interior.	Applicant discloses a bone growth inducing material disposed within the hollow interior. (See page 3, line 34 to page 4, line 2).

		"Said chamber may have at least one access opening for loading the chamber with fusion promoting substances." (Specification, page 3, line 34 to page 4, line 2).
6	188. The fusion device according to claim 186, wherein said pair of substantially flat portions are disposed generally opposite one another.	The pair of substantially flat portions disclosed by Applicant are disposed generally opposite one another. (See Fig. 7 above).
7	189. The fusion device according to claim 186, wherein said pair of substantially flat portions are substantially parallel to one another.	As disclosed by Applicant, the pair of substantially flat portions are substantially parallel to one another. (See page 14, lines 30-32; and Fig. 6 (above)). "The body 622 of the implant 620 has truncated sides 670 and 672 forming planar surfaces that are parallel to the longitudinal axis L_7." (Specification, page 14, lines 30-32).
8	190. The fusion device according to claim 186, wherein said openings defined by said pair of arcuate portions are disposed generally opposite one another.	Applicant discloses that the openings defined by the pair of arcuate portions are disposed generally opposite one another. (See Fig. 3 above).
9	191. The fusion device according to claim 186, wherein said pair of arcuate portions are tapered along a substantial portion of said length of said elongated body.	The pair of arcuate portions disclosed by Applicant are tapered along a substantial portion of the length of the elongated body. (See page 7, lines 7-11; and Fig. 3 (above)). "In the preferred embodiment, the spinal fusion implants of the present invention have a body that is partially or fully frusto-conical shape substantially along the portion of the implant in contact with the adjacent vertebrae of the spine." (Specification, page 3, lines 3-7).

10	192. The fusion device according to claim 186, further comprising an insertion instrument adapted to implant the fusion device within the disc space between the adjacent vertebrae.	The insertion instrument disclosed by Applicant is adapted to implant the fusion device within the disc space between the adjacent vertebrae. (See page 14, lines 2-5; and Fig. 5). "Referring to FIG. 5, a segment of the spinal column S is shown with the vertebrae V_1 and V_2 in lordosis and an implant 520 shown being inserted from the posterior aspect of the spinal column S with an instrument driver D." (Specification, page 14, lines 2-5). 

PATENT
Attorney Docket No. 101.0053-00000
Customer No. 22882

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
Gary K. Michelson	)	
Serial No.: 08/480,908	)	Group Art Unit: 3764
Filed: June 7, 1995	)	Examiner: M. Brown
For: THREADED FRUSTO-CONICAL INTERBODY SPINAL FUSION IMPLANTS	)	

Mail Stop AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

CERTIFICATE OF MAILING VIA U.S. EXPRESS MAIL
Express Mail Mailing Label No. ED541942665US
Date of Deposit: November 10, 2004

I hereby certify that:

1. Transmittal form (in duplicate; $266.00 additional claims fee charged to Deposit Account No. 50-1066)
2. Amendment
3. Second Request for Interference Under 37 C.F.R. § 41.202(a) with Proposed Count and 2 Claim Charts
4. Self-addressed return postcard receipt

are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service with sufficient postage under 37 C.F.R. § 1.10 on the date indicated above and are addressed to:

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Date: November 10, 2004

Sandra L. Blackmon

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FORM PTO-1083

PATENT
Attorney Docket No.: 101.0053-00000
Customer No. 22882
Express Mail Label No. ED541942665US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:
Gary K. Michelson
Serial No: 08/480,908
Filed: June 7, 1995
For: THREADED FRUSTO-CONICAL INTERBODY SPINAL FUSION IMPLANTS

Art Unit: 3764

Examiner: M. Brown

Mail Stop AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

Transmitted herewith is an Amendment for the above-identified application.

☐ No additional fee is required.

☐ Applicant hereby requests a ***-month extension of time to respond to the above office action.

☒ Second Request for Interference Under 37 C.F.R. § 41.202(a) with Proposed Count and 2 Claim Charts is enclosed.

The fee has been calculated as shown below:

	(Col. 1) CLAIMS REMAINING AFTER AMENDMENT		(Col. 2) HIGHEST NUMBER PREVIOUSLY PAID FOR		(Col. 3) PRESENT EXTRA*	LG/SM $ ENTITY FEE		ADD'L FEE DUE
TOTAL CLAIMS FEE	183	-	178	**	5	LG=$18 SM=$9	$18	$ 90.00
INDEPENDENT CLAIMS FEE	8	-	6	***	2	LG=$88 SM=$44	$88	$ 176.00
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIMS						LARGE ENTITY FEE = $300 SMALL ENTITY FEE = $150		$ 0
							TOTAL	$ 266.00

* If the entry in Col. 1 is less than the entry in Col. 2, write "0" in Col. 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, write "20" in this space.
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, write "3" in this space. The "Highest Number Previously Paid For" (Total or Independent) is the highest number found from the equivalent box on Col. 1 of a prior amendment or the number of claims originally filed.

☒ A fee in the total amount of $266.00 to cover the additional claims is to be charged to Deposit Account No. 50-1066.

☒ The Commissioner is hereby authorized to charge any deficiencies of fees associated with this communication or credit any overpayment to Deposit Account No. 50-1066. **A copy of this sheet is enclosed.**

☒ Any filing fees under 37 C.F.R. § 1.16 for the presentation of extra claims
☒ Any patent application processing fees under 37 C.F.R. § 1.17

Respectfully submitted,
MARTIN & FERRARO, LLP

Date: November 10, 2004

By: _____
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